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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/086,603	02/28/2002	Anita Orhand	PF010026	1956

7590 01/25/2005

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EXAMINER

SENF1, BEHROOZ M

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 01/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/086,603	Applicant(s) ORHAND ET AL.	
	Examiner Behrooz Senfi	Art Unit 2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 March 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17, 19 and 20 is/are rejected.
- 7) ☒ Claim(s) 18 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)):
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1 – 2 and 19 – 20, are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearlstein et al (US 6,668,018).

Regarding claims 1 and 19 - 20, Pearlstein '018 teaches, "process of the MPEG Type block wise coding of digital video image " (i.e. fig. 10) and "two zones to which different resolution are assigned (col. 4, lines 20 – 40), two zones of different resolutions are detected" (i.e. col. 10, lines 45 - 65) and "the zone corresponding to each pixel of these mixed blocks is determined" (i.e. col. 4, lines 20 – 40). Pearlstein '018 reference identifies edge and black borders, which would have different resolution than the other part of the image. In other words the black borders or edges are less important and could be all zero's, than the other part of the image. Therefore, it could be encoded in lower resolution than the other part of the image.

Regarding claim 2, Pearlstein '018 discloses, "according to criteria of color, textures, brightness and/or motion of the pixel" (i.e. fig. 7 – 8, col. 8, lines 21 – 40).

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3 - 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearlstein et al (US 6,668,018) in view of Nilsson (US 5,973,739).

Regarding claim 3, Pearlstein '018 teaches, "coding of an image being performed at one improvement (high) and one reduce (low) resolution" (i.e. col. 4, lines 21 – 23). Pearlstein '018 fails to explicitly show base layer and/or enhancement layer. However, such features "layer coding" are well known and used in the prior art of the record as evidenced by Nilsson '739 (i.e. fig. 4, abstract). Therefore it would have been obvious to one skilled in the art to use layer video coders for coding video images comprising lower and higher resolution.

Regarding claims 4 – 5, combination of Pearlstein '018 and Nilsson '739 teach, "improvement layer, the difference between the image coded at maximum resolution and the image according to base layer" (i.e. fig. 4, abstract of Nilson and col. 4, lines 20 – 25 of Pearlstein) and "the base layer and the improvement layer being determined separately, in claim 5" (i.e. fig. 4, base and enhancement layer of Nilson, and also col. 4, lines 22 - 24, portions of frame in reduce resolution and other portion at improve (increase) resolution, of Pearlstein).

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Regarding claims 6 – 10, combination of Pearlstein '018 and Nilsson '739 teach, the claimed “the image is coded via data or coefficients (DCT), claim 7” reads on (fig. 10, DCT domain), and “the lower resolution is obtained either via the base layer or via the combination of the base layer with at least one improvement layer, in claims 9 - 10” (i.e. fig. 4 of Nilsson).

5. Claims 11 – 17, are rejected under 35 U.S.C. 103(a) as being unpatentable over Pearlstein et al (US 6,668,018) in view of Hartung et al (US 5,481,308).

Regarding claim 11, Pearlstein '018 teaches, “coding of an image being performed at one improvement (high) and one reduce (low) resolution, (multi resolution)” (i.e. col. 4, lines 21 – 23). In other words presenting different portions of an image at different resolution. But fails to explicitly show “mixed block with two adjacent zones (hierarchical)”. However, such features are well known and used in the prior art of the record as evidenced by Hartung '308 (i.e. fig. 9, col. 9, lines 62 – 67). Taking the combined teaching of Pearlstein and Hartung as a whole with respect to fig. 9 of Hartung, would make the limitation obvious. Since fig. 9, shows the mixed block with different resolution level.

Regarding claims 12 - 17, combination of Pearlstein '018 and Hartung '308 teach “quantization to code the zones” (i.e. fig. 8 of Hartung) and “the closer the pixels of the first zone are to the second zone, the more their resolution increases, in claim 13” reads on (i.e. fig. 9, for example, block 1 - 4 would have the highest resolution, therefore the pixels in the blocks 5 – 7 which are closer to the border line of block 1 – 4, would have higher resolution than the pixels that are further away) and “each pixel of the first zone

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is a linear function of the distance of the pixel from the second zone" would have been inherent in fig. 9 of Hartung, and "using mask" reads on (col. 7, lines 23 – 41 of Hartung).

Allowable Subject Matter

6. Claim 18 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Behrooz Senfi** whose telephone number is **(703)305-0132**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Chris Kelley** can be reached on **(703)305-4856**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:

(703) 872-9314


Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

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Any inquiry of a general nature or relative to the status of the application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

B. S. B. S.

12/22/2004


CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600